

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY


(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 05 JUL 2006

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Applicant's or agent's file reference 18981/855	FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/IB2004/000917	International filing date (day/month/year) 22.03.2004	Priority date (day/month/year) 22.03.2004	
International Patent Classification (IPC) or national classification and IPC INV. B66B13/12			
Applicant OTIS ELEVATOR COMPANY et al.			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau) a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand 27.01.2005		Date of completion of this report 05.07.2006	
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016		Authorized officer Janssens, G Telephone No. +31 70 340-	



**INTERNATIONAL PRELIMINARY REPORT
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International application No.
PCT/IB2004/000917

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-7 as originally filed

Claims, Numbers

1-10 as originally filed

Drawings, Sheets

1/3-3/3 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-10
	No: Claims	
Inventive step (IS)	Yes: Claims	1-10
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Re Item V.

- 1 The following documents are referred to in this communication:

D1 : WO 03/089356 A (WITTUR GMBH ; OBERLEITNER RUPERT (AT)) 30
October 2003 (2003-10-30)

D2 : ES 2 119 650 A (TECHNORESEARCH PROMOTION SA) 1 October 1998
(1998-10-01)

- 2 Document D1, which is considered to represent the most relevant state of the art, discloses (the references in parenthesis applying to this document):
Coupling device for elevator car and landing doors of the kind comprising moving cams(14,15) integral with the car door and driving the landing door in front of a story landing by means of a coupling plate integral therewith and engaging with the cams (14,15), locking it mechanically and electrically upon door closure to allow the subsequent drive of the car, and wherein that said cams(14,15) are movably mounted with a variable distance(d0-d2) from each other on the car door, independently from the car door (drive belt(106))* , and that it comprises a part (1) to drive the cams(14,15) with a variable distance, which is mounted on the car door and connected to the drive belt (106) and to one of the cams(15).
(See figs. 1-4)

* The cams of the device of the current application can move independent from the door but not from the door drive belt since they are rigidly coupled to the latter. The cam in D1 is coupled to the belt over a flexible element and can, if so wished, be moved independent from the door drive belt.

From this, the subject-matter of independent claim 1 differs in that:
said part exerting a lever action on said cam to drive it towards and away from the other cam with a large displacement relative to a small overtravel drive of the belt, in order respectively allow to unlock the coupling plate and its landing door drive coupling when the doors open and to lock it when they close.

- 2.1 The subject-matter of claim 1 is therefore novel (Article 33(2) PCT)
The problem to be solved by the present invention may be regarded as:
The belt in the coupling device of D1 has to move a longer distance than the cams move. This causes a loss of time in the door operation.

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(SEPARATE SHEET)**

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- 2.2 The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:
Non of the available prior art shows the solution proposed by the application.
- 2.3 Claims 2-10 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.